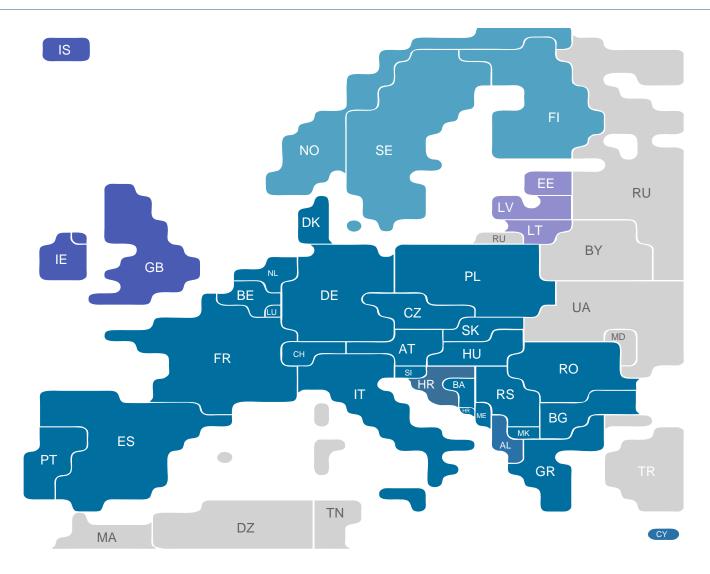
Challenges and chances for electricity market integration in SEE

Damjan Međimorec (HOPS, Croatia), ENTSO-E RG SEE Convenor

Energy Trading Central & South Eastern Europe Budapest, 14th June 2018

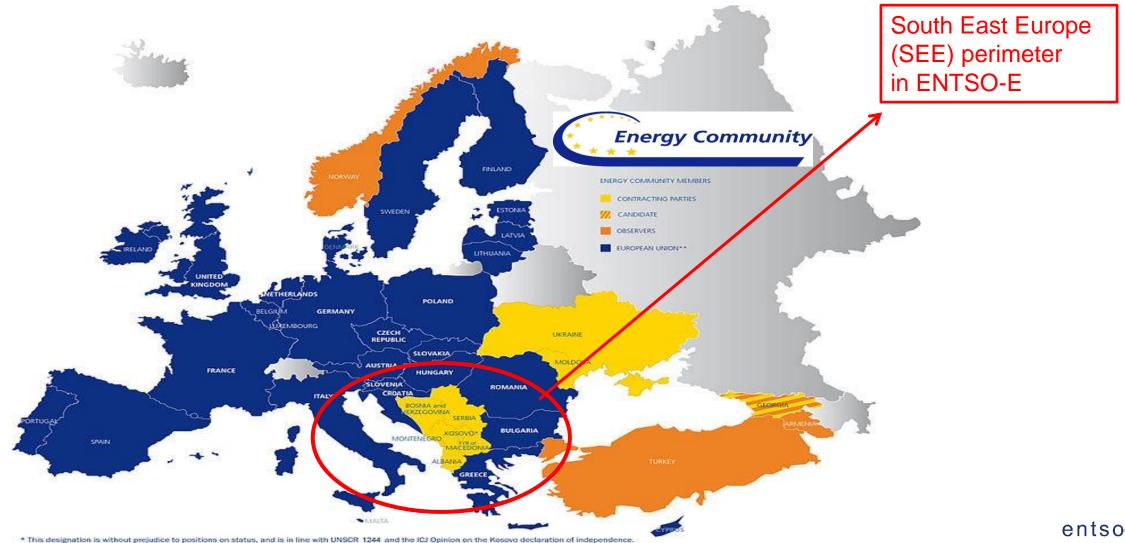


ENTSO-E – pan-European TSOs Association



- 43 member TSOs from 36 countries
- 5 synchronous areas (represented by different colours on the figure left)
- Most of the ENTSO-E organisational elements (such as committies – SO, SD, Market, RDIC, LRG) are at association level, but there are several also at the regional levels

SEE in European Union and Energy Community (EnC)



Gaps

Primary energy law (3.package)

Levels of implementation

Market
(NCs&GLs)
VAT,
financial,
customs
rules

Organized DA market (PXs)

SEE countries with different legal obligations (EU and non-EU)

SEE countries with different levels of implementation (voluntary & binding)

SEE countries with different level of alignment of relevant rules & laws

SEE countries in different stages of market development

- Ready for DA market coupling with feasible neighbours
- Completing remaining rules
- Establishing an organized DA market

Regional (TSOs) cooperation – drivers and challenges for way forward

Joint (LT) capacity allocation

Compatible market rules and MC governance

WB6, CESEC, REFs, CEP

Coordinated capacity calculation

- WB6 initiative EnC
- **CESEC-e** (market,infrastructure,SoS) EC
- Finalisation of CEP (Clean Energy Package) - EU Council (MSs) & EC & EP
- **RGs and future REFs (Regional Energy** Forum) - ENTSO-E
- **Decentralized process of national/bilateral** projects (with a close view on CACM)
- **Contractual basis and operative** governance (MRC model)
- Two auction offices provide services for (not yet all) SEE borders
- One of basic 5 RSC services (at least two RSCs likely to be involved)

Network Codes and Guidelines Transposition in Energy Community State of play

- Adopted by PHLG (in addition adoption needed in CPs)
- Not addressed yet by EnCS
- Drafts prepared by EnCS and currently being discussed with NRAs and TSOs
- Drafts under preparation by EncS (not yet shared with stakeholders)

CONNECTION **NETWORK CODES**

> Requirements for Generators

Demand connection

HVDC connections

MARKETS GUIDELINES

> Capacity Allocation & **Congestion Management**

Forward Capacity Allocation Guidelines

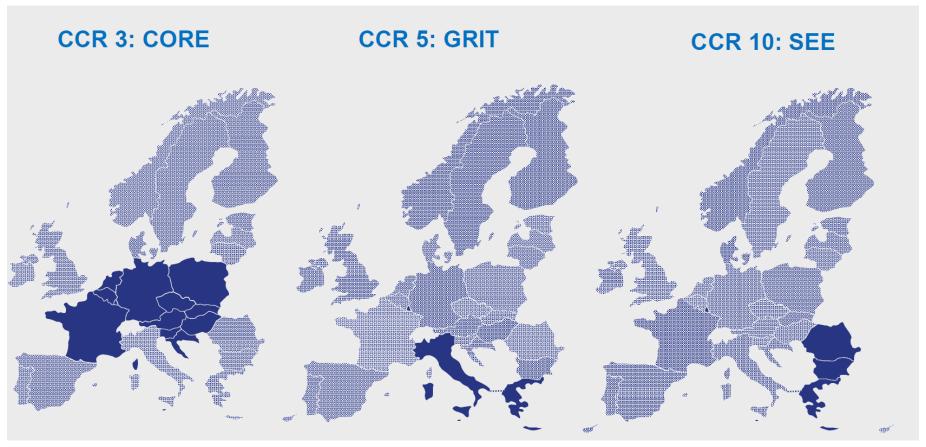
Balancing Guidelines

OPERATIONAL NC & GL

System Operation Guideline

Network Code on Electricity Emergency and Restoration

Relevant EU Capacity Calculation Regions (CCRs)

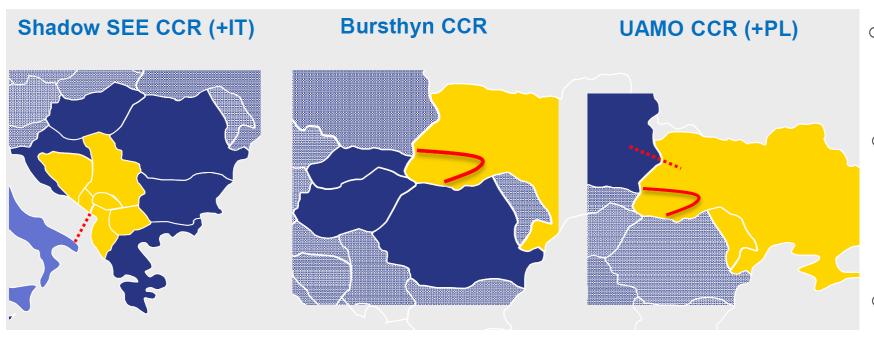


 ACER Decision on CCRs from 2016 was based on All TSOs' proposal for CCRs (from 2015) with acompanying Explanatory document (which Annex 1 included also non-EU borders)

- CCR introduced with CACM GL
- Many stipulations in CACM GL, but also FCA GI and SO GL require intensive and broad cooperation (mostly TSOs, but also NRAs and NEMOs) at CCR level
- Therefore CCRs becomes a focal point for TSOs cooperation

Figures - source: EnCS

EnCS proposals for CCRs in drafts of CACM&FCA for EnC



- Legal implementation of SEE CCR currently binding only for 3 EU TSOs
- Future "Shadow" SEE CCR should include EU SEE CCR, non-EU (WB6) and EU/non-EU bidding zone borders (with 3 additional EU TSOs)
- CCR Governance to be established ahead from TSOs

Envisaged future composition of CCRs including non-EU bidding zone borders (Annex 1 to the Explanatory document):

- establishes the basis for the future implementation of the CACM Regulation by non-EU TSOs/non-EU regulatory authorities
- facilitates the early implementation by non-EU TSOs and the cooperation of the EU and non-EU NRAs
- involved TSOs (EU and non-EU) should work together to achieve the targets set in the CACM

Source: EnCS

^{*} excluding bidding zone borders HU-RO and HU-HR

^{**} bidding zone border IT-ME could be included iwhen the interconnection between Italy and Montenegro is commissioned

Progress towards market integration

Review of the Road Map from 2017 report

"Enhancing Market Coupling of SEE Region"

Tentative road map for DA coupling Main Steps envisaged in 2017

Northern part of the region » 2-4 borders coupled

WB6 target » 6-8 borders coupled

Coupling of the remaining borders

Tentative road map for DA coupling comparison with notified DA MC projects (e.g. in WB6 and or CESECe)

SI-HR HU/RO-RS ME-RS; HR-HU

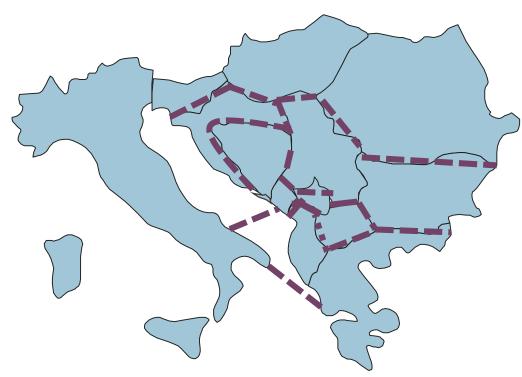
AL-KS; BG-RO

GR-IT; HR-RS

BG-FYROM; IT-ME

FYROM-RS; AL-ME

BG-GR; BiH-HR; BiH-RS AL-FYROM; KS-RS; **FYROM-GR**



- Under finalisation (go live scheduled for 19th June 2018)
- Notified & progress reported
- Notified & obstacles occured
- Notified & no progress (yet)
- No notification & no progress

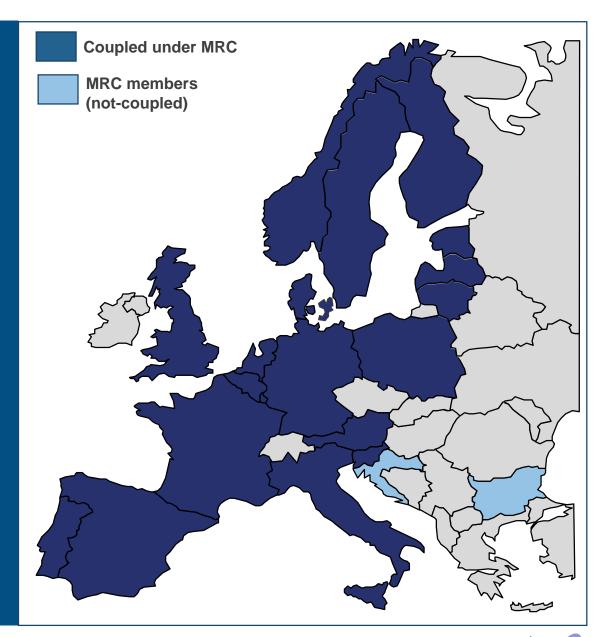
Day-Ahead

Multi Regional Coupling (MRC)

Scope: Operation and evolution of single Day Ahead Market Coupling (Single DA Solution)

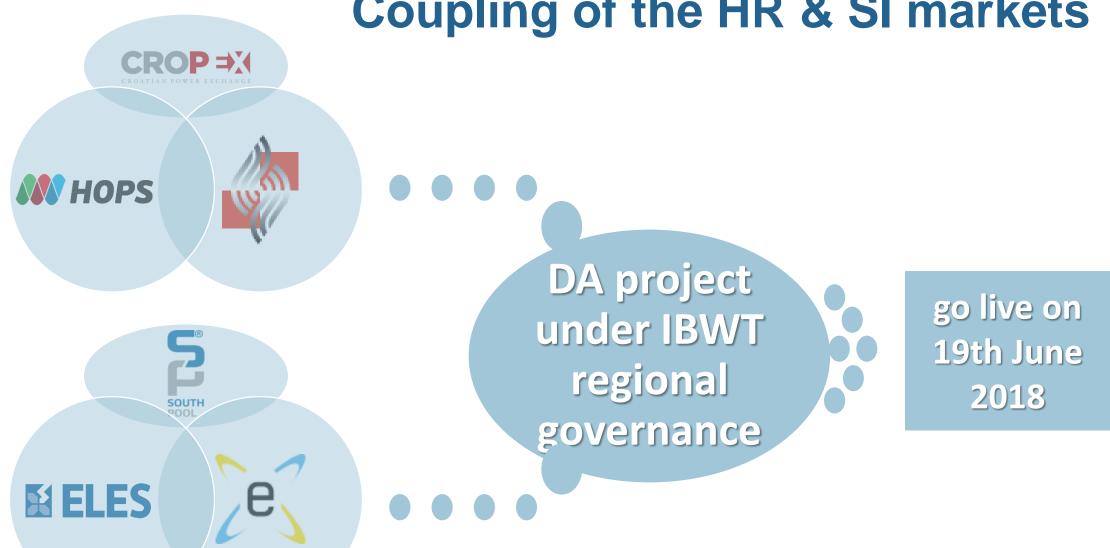
TSOs: 50HERTZ,
AFFARSVERKETSVENSKAKRAFTNAT,
AMPRION, APG, AST, BRITNED, CREOS,
ELERING, ELES, ELIA, ENERGINET.DK,
FINGRID, LITGRID, NATIONAL GRID, PSE, REE,
REN, RTE, STATNETT, TENNET B.V, TENNET
GMBH, TERNA & TRANSNET

NEMOs (PXs): BSP, CROPEX, EPEX, GME, IBEX, Nordpool, OMIE & TGE



MRC Extension Project underway at the edge of SEE:

Coupling of the HR & SI markets



THANK YOU FOR YOUR ATTENTION





